

HAVRANEK, MILOVA, A.; MUSIL, M.; ZAHRAKOVA, L.

Hygiene of communities. Cesk. hyg. 7 no.6:337-340 J1 '52.
(PUBLIC HEALTH)

MILOVA, A.; STROS, O.; TEJMAR, J.; ZAHRAJKOVA, L.

Stenotic respiration in physical work. *Cesk. fysiол.* 8 no.3:224 Apr 59.

1. Ustav hygieny, Praha. Predneseno na III. fysiologickych dnech v Brne dne 14. 1. 1959.

(WORK, physiol.

resp. (O₂))

(RESPIRATION, physiol.

eff. of work (O₂))

ZAHRADNICEK, Ivan, promovany ekonom, CSc.

Water rates in Czechoslovakia and thier historical development.
Vodni hosp 15 no.2:87-89 '65.

1. Higher School of Economics, Prague.

ZAHRADNICEK, Ivan, premevany ekonom

Water in the national economic process. Vodni hosp 14 no.
1:35-36 '64.

1. Vyseka skola ekonomicka, Praha.

ZAHRADNICEK, J.; VAVRECKA, O.

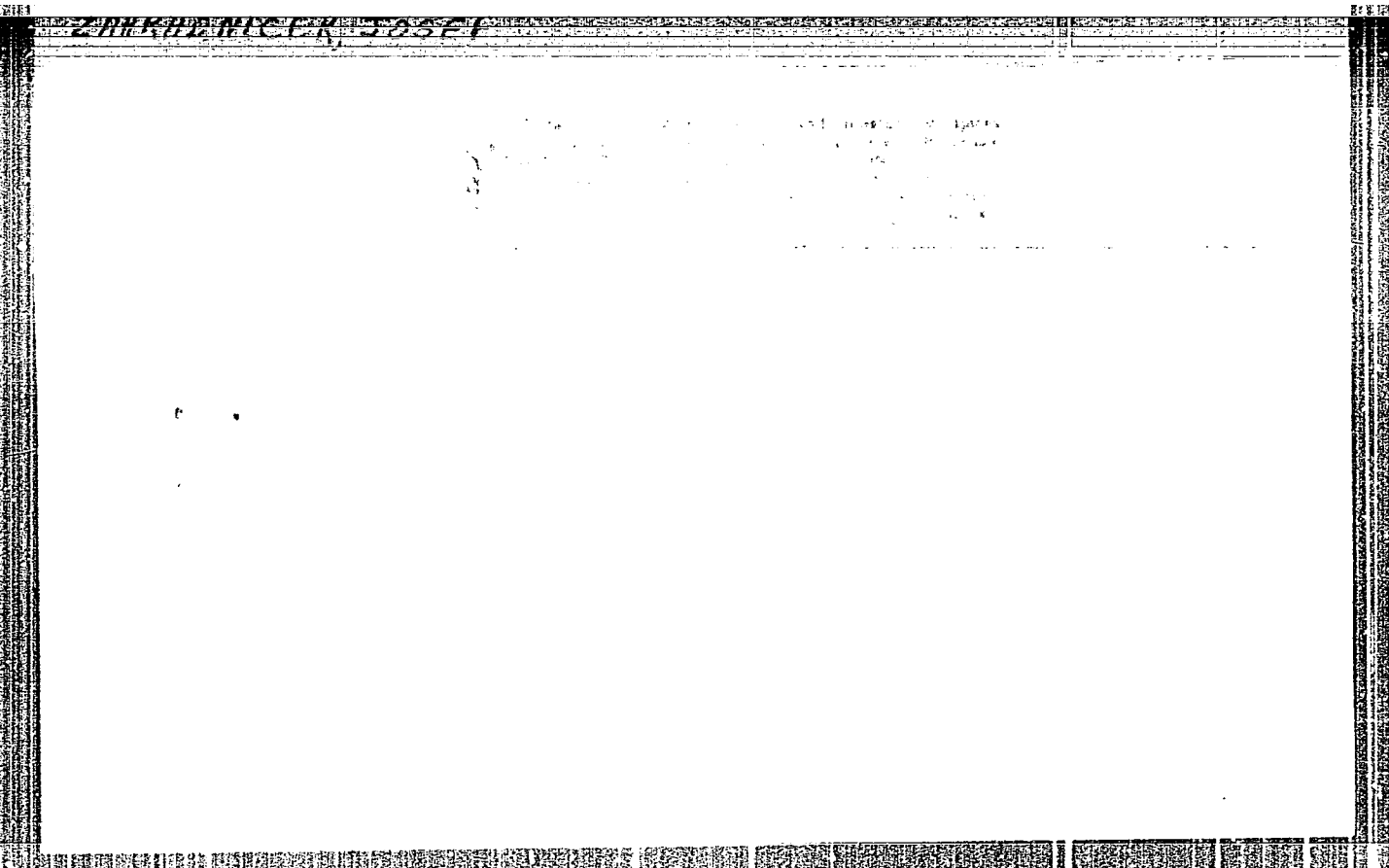
Basalt-lined pipes for the transportation of pulverized coal in electric-power plants.

P. 438. (ENERGETIKA.) (Praha, Czechoslovakia) Vol. 7, No. 8, Aug. 1957

SO: Monthly Index of East European Accession (EEAI) LC. Vol. 7, No. 5, May 1958

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963420017-8



APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963420017-8"

SCHMIDT, Lubos; ZAHRADNICEK, Josef

Changes in sugar beet weight during its fluming. Listy cukrovar
80 no. 7:169-171 J1 '64.

SCHMIDT, Lubos; ZAHRAJNICEK, Josef; KEC, Vladimir

Weight losses of sugar beets gathered in small heaps in the field and the influence of the loss on sugar beet technological quality. Listy cukrovar 80 no.8:218-220 Ag'64

ZAHRADNICEK, Josef, Inc.

"Handbook for the canning industry" by [ir.] Erno Kardos, [dr.]
Karlo Gyones, Endre Gzenes. Reviewed by Josef Zahradnick. From
potreba 1: no. 20:534-535 O' 181.

529.11 126.15 A57

2176. Form and mass of the earth. J. LAURENCE
Publ. For. Sci. Univ. Maryland (No. 257) 167p. (1947)
In Czech.

Taking into consideration terms of the second order, the author first computes the flattening of the earth from Clairaut's equation, using for the great axis the value given by Hayford and for the gravitational acceleration the value accepted by U.C.I.I. in Stockholm (1930). The computed value $1/297.3$ differs by only 1% from the value given by Hayford. Accepting as the most probable value for the Newton gravitational constant $\gamma = (6.667 \pm 0.005) \cdot 10^{-8}$ abs unit (obtained as the mean of the measurements made by 6 different authors from 1849 to 1927), he finally obtains for the mass of the earth $M = (5.979 \pm 0.004) \cdot 10^{27}$ g, a value different from that accepted at the meeting of U.C.I.I. in Madrid (1924).

APPLIED MECHANICS REVIEWS

ASIS-STA METALLURGICAL LITERATURE CLASSIFICATION

CLASS NO.	CLASS NO. ONE TWO	CLASS NO. ONE TWO	CLASS NO. ONE TWO
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100

CA

453
W

1892. Photochemical effects produced by Maxwell's
currents. J. ZIMMERMAN. *Phil. Soc. Sci. Univ.
Munich* (No. 21) 3-16 (1902) in Czech.

Gives a series of photographs produced by means
of currents passing through a condenser, voltage
 $\sim 10^4$ V, frequency $\sim 10^4$ - 10^5 c/s and intensity of some
mA. Different objects in the focus of plates have been
put into the field of the condenser, e.g. paper, glass,
wood, a leaf or a layer of air, etc. The kinetic energy
of ions or electrons in the current is changed into
photochemical energy on the photographic plate as
long as the energy of an electric particle $> 10^{-11}$
erg, i.e. 1 eV.

ASD-SEA METEOROLOGICAL LITERATURE CLASSIFICATION

CA

Photochemical effects of Maxwell's currents. Josef Zlatodubek (Masaryk Univ., Brno, Czech). *Publ. Zlatodubek, Masaryk No. 301, 3-16(1948).*—If between the metal plates of a condenser is put a nonconducting plate of glass or hard rubber, then a photographic plate, an object to be examined, and another nonconducting plate, the Maxwell currents passing through the condenser produce an image on the photographic plate. With voltage of 100 v., frequency 100-1000, current 1 ma., and exposure 1 to 10 sec., 10 photographs were prepd., with such materials as metal coins, wood, glass, paper, plant leaf, wire gauze, tinfoil, fossils, and various thicknesses of air. Patterns show that the e.d. varies from place to place, according to the structure of the material. With conductors, the pattern corresponds to surface structure; with semiconductors, the inner layers are also shown. The energy of the ions or electrons must be at least 1 e.v. in order to affect the photographic plate. Maxwell's currents, which pass perpendicularly to the photographic plate, must be distinguished from sliding currents expanding along the surface of the photographic plate, producing Lichtenberg's figures. H. Neuenhofer.

SA

B 66

1

621.396.611.1 : 534.141.4

4293. Strouhal's relation between wind speed and pitch of the sound produced by friction - a general law of physics. J. Zahradnick and P. Konusplik. Cas. Fest. Mat. Fis., 75 (No. 2) 97-102 (1950) In Czech.

There is a complete analogy between the phenomena of the Barkhausen-Kurz oscillations in electron tubes, the Zacek oscillations of magnetrons (Z. Hoch-frequenztech., 32, 172 (1928)), those investigated by Sahaneck in a diode designed for the purpose (Phys. Z., 29, 640 (1928)) and phenomena for which Strouhal found in 1878 a relation $ND = kv$ when studying the friction sounds excited by wind in taut wires (N frequency, D diameter of the wire, v wind speed). It is shown that this relation is a general law of physics which is valid for liquid and gas particles hitting an obstacle as well as for electrons in a triode with a positive grid, in a magnetron or in a diode with an external cathode, the internal anode of which is in the form of a wire.

B. F. KRAUS (R)

ALB-514 METALLOGICAL LITERATURE CLASSIFICATION

Z AHRADNICEK, J.

ZAGRADNICEK, Ya. [Zahradniček, J.], prof. (Praga)

Guiding principles of our method for treating congenital hip dislocation.
Ortop.travm. i protez. 20 no.6:65-69 Je '59. (MIRA 13:3)

(HIP, disloc.
congen., surg. (Rus))

ZAHRADNICEK, J.

Treatment of scoliosis. Acta chir.orthop.traum.czech 17 no.3-10:
335-338 1950. (CMLL 20:7)

ZAHRADNICEK, J.

In memoriam prof.dr. Julia Hanauska. Acta chir. orthop. traum. cech.
18 no.8-9:307-309 1951. (CML 21:3)

ZAHRADNICEK, J.

Scoliosis and the school. Cesk. pediat. 10 no.6:431-433
July 55.

1. I. klinika pro ortopedickou a detskou chirurgii--Praha.
(SCOLIOSIS, in infant and child
school child., special schools & methods.)
(SCHOOLS
special schools for child. with scoliosis.)

ZAHRADNICEK, J., Prof.

Development of orthopedic surgery in Czechoslovakia after the
end of the World War II. Prakt. lek., Praha 35 no.12:285
20 June 55.

(ORTHOPEDICS, history
in Czech., surg.)

JOSEPH ZAHRADNICEK

CZECHOSLOVAKIA / Chemical Technology, Chemical Products and
Their Application, Part 3 - Food Industry.

H-27

Abs Jour : Ref. Zhur. Khimiya, No 4, 1958, 12897.

Author : Josef Zahradnicek.

Inst : Not given

Title : Causes of Jam Flowing into Yogurt along Jar Wall.

Orig Pub : Prumysl potravin, 1956, 7, No 3, 133 - 134.

Abstract ; No abstract.

Card 1/1

ZAHRADNICEK, J., Prof., Dr.

Pathological dislocation of the hip in infants. Acta chir. orthop.
traum. cech. 23 no.4:171-179 July 56.

1. Z I. Orthoped. kliniky KU v Praze, prednosta prof. Dr.
J. Zahradnicek.
(HIP. dislocation,
in inf., acquired (Cs))

ZAHRADNIK, J., ins.

The tasks of technical development should have priority.
Elektrotechnik 17 no.2:33 F '62.

1. Ministerstvo teskeho strojirenstvi, Praha.

ZAHRADNICEK, Jiri, inz.; LANSTIAK, Bohumil, inz.

An automatic grinding ball batcher. Rudy 10 no.8:281-284
Ag '62.

1. Ustav pro vyzkum rud, Praha.

ZAHRADNICEK, J.

"Experience with metal covers for jars in the processing of canned fruit. p. 561."

FRUMYSL POTRAVIN. Praha, Czechoslovakia. Vol. 6, no. 11. 1955.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59 unclas

ZAHRADNICEK, J.; CIZEK, A.

SCIENCE

ZAHRADNICEK, J.; CIZEK, A. Time dependence of the physical magnitudes in the universe. p. 251.

No. 384, 1957.

Monthly Index of East European Accessions (EEAI) 10, Vol. 7, No. 12, Dec. '58

CZECHOSLOVAKIA/Chemical Technology. Chemical Products H
and Their Uses. Part III. Food Industry.

Abs Jour : Ref Zhur-Khiniya, No 15, 1958, 51974

Author : Zahradnicek, Josef

Inst : -

Title : Determination of Essential Oils and Moisture Content in Condiments.

Orig Pub : Prunysl potravín, 1956, 7, No 7, 315-320

Abstract : Method and results of the determination of essential oils and moisture in ginger, thyme, anise, black pepper, cinnamon, marjoram, clove, etc., were described. -- E. Tukachinskaya

Card : 1/1

Zahradnicek, J.; Cizek, A.

Shifting of the perihelion of the planet Mercury. p. 281.

Bratislava. Univerzita. Prirodovodecka fakulta. SPISY Prno, Czechoslovakia.
No. 365, 1955.

Monthly List of East European Accessions, (EEAI) LC, Vol. 8, no. 10, 1959. -Oct.
Uncl.

SCHMIDT, Lohes; ZAHRAWICK, Josef

Effect of natural and artificial ventilation on the storage of sugar
beets. Listy Československé Akademie věd, 1964, 10, 161.

1. Submitted June 29, 1964.

KONIG, B.; ZAHRADNICEK, K.; HYZAK, A.

Contribution to eye pathology. (Generalized sympathicoblastoma of the adrenal medulla with metastases into both eyes. Cesk. oftal. 21 no.1:65-71 Ja '65

1. Oční klinika lékařské fakulty Palackého University v Olomouci (prednosta: prof. dr. V.Vejdovsky, DrSc.); Oční oddelení Obvodního ústavu národního zdraví ve Vsetíně (vedoucí: MUDr. K. Zahradnicek), a Patologickoanatomický ústav lékařské fakulty Palackého University v Olomouci (prednosta: doc. dr. V.Valach).

KONIG, B.; ZAHRADNICEK, K.

Bilateral metastatic cancer of the choroid of the optic nerve.
Cesk. ofth. 16 no.1:78-83 Ja '60

1. Očni klinika lékařské fakulty PU v Olomouci, přednosta prof.
MUDr. V. Vejdosky Oční oddelení OUNZ ve Vsetíně, přednosta prim.
MUDr. K. Zahradnicek.

(CHOROID, neopl.)

(BREAST, neopl.)

~~SECRET~~
DUBANSKY, B., Dr.; HARTL, J., Dr.; MYSLIVY, M., Dr.; SVOBODA, E., Dr.;
DOLENEK, A., Dr.; ZLAMAL, J., Dr.; ZAHRADNICEK, K., Dr.;
DOLENEK, A., Dr.

Papilledema in verified intracranial tumor. Cesk. ofth. 12 no.5:
334-340 Oct 56.

1. Neurologicka klinika PU v Olomouci, prednosta prof. Dr.
Jaromir Hrbek, Ocní klinika PU v Olomouci, predn. prof. dr.
Vaclav Vejdovsky.

(BRAIN, NEOPLASMS, complications,
papilledema (Cz))

(NERVES, OPTIC, diseases,
papilledema in intracranial tumors (Cz))

ZABRADNICEK, K., Dr.; DOLENEK, A., Dr.

Atrophy of the optic nerve in children. Cesk. ofth. 12 no.5:
341-345 Oct 56.

1. Očni klinika PU v Olomouci, prednosta prof. dr. V. Vojdovsky
Očni oddeleni OUNC ve Vastine, prednosta prim. I r K. Zabradnicek.
(NERVES, OPTIC, diseases,
atrophy in child. (Cz))

HRING, A.; VASKOVA, M.; ZAHRADNICEK, K.; HOLUBA, R.

Orbital tumors & injury. Cesk. oft. 14 no.5:375-379 Oct 58.

1. Oční klinika PU v Olomouci, přednosta prof. dr. V. Vejdovsky; Patol.
anatomický ústav PU v Olomouci, přednosta doc. dr. C. Dvoracek; Oční
odd. OUNZ na Vsetíně, přednosta prim. dr. K. Zahradnicek.
(ORBIT, neoplasms
post-traum. in inf., case report (Cz))

CZECHOSLOVAKIA/Chemical Technology. Pharmaceuticals. Vitamins. H
Antibiotics.

Abs Jour: Ref Zhur-Khim., No 24, 1958, 82724.

Author : Zahradnicek M.

Inst : OSTAV PHARMACEUT. CHEM. BRNO, CZECH.

Title : A Notation Concerning the Determination of Silver in
Colloidal Solvent Preparations According to the
Czechoslovakian Pharmacopeia 2.

Orig Pub: Farmacia (Ceskosl.), 1956, 25, No 9, 274-276.

Abstract: The conversion of silver from a colloidal into
an ionic form, by the method of the Czecho-
slovakian Pharmacopeia 2, is time-consuming. The
rapid method of analysis is suggested which gives
accurate reproducible results. A two gram sample
of colloidal silver or ~ one gram of Ag proteinate

Card : 1/2

ZAHRA DNICEK, M.

CZECHOSLOVAKIA/Analytical Chemistry - General Questions.

E-1

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 24685

Author : Jakubec, I., Zahradnicek, M.

Inst : -

Title : Use of Two Standards in Quantitative Evaluation of
Chromatograms Following Elution.

Orig Pub : Sb. chekhosl. khim. rabot, 1957, 22, No 4, 1088-1096

Abstract : See RZhKhim, 1957, 44822.

Card 1/1

ZAHRAVNICEK, Milen, inz.; ZAVADKY, Karel, inz.

New distribution of aeronautical short-wave frequencies.
latecky obzor 8 no.8:230-231 Ag 1964

CZECHOSLOVAKIA

ZAHRADNICEK, M.: Department of Pharmaceutical Chemistry, Pharmaceutical Faculty, Comenius University (Katedra Farmaceuticke Chemie Farmaceuticke Fakulty UK), Bratislava.

"Study of Mixed Indicators by Complementary Tristimulus Colorimetry. II. Screening of Indicators."

Prague, Ceskoslovenska Farmacie, Vol 16, No 2, Feb 67, pp59 - 63

Abstract [Author's English summary modified]: Screening indicators producing a grey coloration have a more distinct color change than individual indicators. The positions of the color changes of mixed indicators are shown by the complementary color points in chromat-icidic diagrams; the junctions of colored points of mixed indicators pass through a narrow range of distinctly different colors with a very clear color change. Simple indicators have broader ranges of color change which are less distinctive. 3 Figures, 3 Tables, 5 Western, 3 Czech references.

1/1

MARSICEK, J., inz.; ZAHRADNICEK, M., inz.

Present state of planning the medium wave broadcast in Africa.
Cs spoje 10 no.1:23-24 F '65.

ZAHRADNICEK, M.

Study of mixed indicators with complementary tristimulus colorimetry. 1. Calculation of the conditions for obtaining gray color. Cesk. farm. 13 no.10s489-493 D ' 64

1. Katedra farmaceutickej chemie farmaceutickej fakulty
University Komenského, Bratislava.

ZAHRADNICEK, Milan, inz.

Conference on space communications. Cs spoje 9 no.1:
3-5 F'64.

1. Ustredni sprava spojů.

ZAHRADNICEK, Milan, inz.

Development of radiobroadcasting in Africa. Cs spoje 9 no.3:15-16
Js '64.

1. Central Administration of Telecommunication.

TOMASKOVA, V.; BLESOVA, M.; ZARRADNICEK, M.

Determination of soluble pentobarbital with the use of a mixed
indicator bromocresol green-methyl red. Cesk. farm. 13 no.3:
93-96 Mr'64.

1. Katedra farmaceuticke chemie farmaceuticke fakulty UK,
Bratislava.

*

ZAHRAVNICEK, Milan, inz.

Extraordinary Administrative Conference on Problems of Radio-
communication in the Universe. Letecky obzor 8 no.3:86-87
Mr'64.

ZABRADNICEK, Milan, ins.

Tenth Assembly of the International Radio Consultative Committee.
Cs spoje 8 no.3:9-10 Je '63.

1. Ustredni sprava spoju.

ZAHRADNICEK, Milan, inz.

Problems of the short-wave band. Cs spoje 7 no.1:14 Ja '62.

1. Pracovník Ministerstva dopravy a spoju

COUNTRY : CZECHOSLOVAKIA
 CATEGORY : Chemical Technology, Chemical Products and Their Uses. Part 3. Synthetic and Natural
 ABS. JOUR. : RZKhim., No. 1 1960, No. 2148
 AUTHOR : Zahradnick, H.; Sekerkova, D.; Benesova, S.
 INST. : -
 TITLE : Use of Mixed Indicators in Analysis of Medicinal Preparations. I. Quantitative Determination of Sodium Bicarbonate
 ORIG. PUB. : Ceskosl. farm., 1958, 7, No 8, 438-440
 ABSTRACT : A comparison of the quantitative determination of NaHCO_3 , using methyl orange, with determination in the presence of modified mixed indicators, namely, dimethyl yellow - methylene blue and methyl orange - indigo carmine, was carried out. The advantage of the above-named mixed
 *Medicinal Substances. Galenicals and Medicinal Forms

CARD:

1/2

H-58

COUNTRY :
CATEGORY :

RES. JOUR. : RZKhim., No. 1 1960, No. 2148

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT :
cont'd

Indicators is the precision of the transition of color which produces more accurate results. As compared with the method of the Czechoslovakian literature 2, the proposed method is more convenient for determining NaHCO_3 in small weighed portions, using more diluted solutions and a mixture of methyl orange - indigo carmine as catalyzers.-- From authors' summary

RECD:

2/2

JILEK, M.; TREKA, J.; ZAHRADNICEK, O.

Favre-Racouchot disease. Cesk. dermat. 29 no.3:173-175 1964

1. I. dermato-venerologicka klinika fakulty vseobecneho lekar-
stvi KU (Karlovy university) v Praze; prednosta: prof. dr. J.
Konopik, DrSc.

ZAHRADNICEK, Rudolf

Survey of Czechoslovak technology at the Second International Fair in
Brno. Nova technika no.11:515-518 N '60.

1. Vedouci OTS Mikrotechny n.p., Praha.

ZAHRADNICEK, Rudolf

Tachometers for aeroplanes. Nova technika no.12:551-553 D '60.

1. Vadouci OTS, Mikrotechna, n.p.

NEPRAS, M.; ZATRADNIA, B.

Physical properties and chemical reactivity of alternans hydrocarbons and related compounds. *Is. Li. Ch. Chem* 29 no. 7:1545-1560 Jan 1964.

1. Research Institute of Organic Syntheses, Pardubice-Hydilvi, and Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague.

RASKA, Karel, Doc., MUDr.; RADKOVSKY, Ing.; ZAHRAVNICKY, J., dr.;
SYRUCEK, L., dr.

Problem of scarlet fever in Czechoslovakia. Cas. lek. cesk.
91 no.23:669-675 6 June 52.

1. Z III. odboru SZU, a' prof. dr. Prochazka, dr. L. Seiller,
z infekcniho oddeleni nemocnice na Bulovce v Praze.
(SCARLET FEVER, epidemiology,
in Czech.)

ZAHRADNICKY J.
(4026)

*Identification of B-haemolytic streptococci (Czech text) CSL. HYG. EPID. MIKROB. 1953,
2/2 (132-138)

The technique of collecting and inoculating specimens and the importance of the medium are discussed. By means of immediate inoculation, use of enriching media and other factors discussed, B-haemolytic streptococci were isolated in 98.14% of clinically diagnosed scarlet fever cases. This supports the streptococcal aetiology of the disease.

Syrucak - Prague

SO: E. M. Vol. 7, No. 8 - Sect. IV August 1954

Z AHRADNICKY, JIRI,

ZAHRADECKY, Jiri, MUDr; SYRUCKE, Lubomir, MUDr; BRUCKOVA, Marie;
JELINKOVA, Jarmila; MICKOVA, Stanislava, ROTT, Jiri, RYDr
SALACOVA, Jitka

Experience with serologic identification of beta hemolytic Strepto-
cocci during the period of 1950-1952. Cesk. hyg. epidem. mikrob.
2 no.4:291-300 Aug '53.

1. Ustav epidemiologie a mikrobiologie v Praze, red. doc. Dr Karel
Raska.

(STREPTOCOCCUS,
hemolytic B, serol. typing)

ZAHRADNICKY, J. MUDr.

BRABEC, S., MUDr; SLEJSKA, F., MUDr; ZAHRADNICKY, J., MUDr

Epidemic of angina following consumption of ice cream. Cent. hyg.
epidem. mikrob. 2 no.6 :456-459 Dec. 53.

1. Z krajske hyg.-epidem. stanice v Jihlavy, Okresni hyg.-epidem.
stanice v Havl. Brode a Ustavu epidemiologie a mikrobiologie v Praze
(red. doc. Dr. K.Raska)

(THROAT, diseases,

streptoc. sore throat after ice cream consumption)

(ICE CREAM,

streptoc. sore throat after ice cream consumption)

(STREPTOCOCCAL INFECTIONS,

throat, after ice cream consumption)

KRATKOVA, Edita, MUDr; ZAHRADNICKY, Jiri, MUDr

Use of penicillin in therapy of angina. Cas.lek.cesk. 94 no.15:
381-384 8 Apr 55.

1. Z detskeho interniho oddeleni Thomayerovy nemocnice v Praze-
Krci (prim. Dr E.Kratkova) a z Ustavu epidemiologie a mikrobiologie
v Praze (red. doc. Dr K.Raska)

(PENICILLIN, derivatives,

procaine penicillin G in ther. of anginas)

(PAIN,

anginas in inf. & child. ther., procaine penicillin G)

EXCERPTA MEDICA Sec.6 Vol.11/1 Internal Med. Jan 57
ZAHRADNICKÝ J.

40. ZAHRADNICKÝ J. Ost. Epidemiol. a Mikrobiol., Praha. *K léčbě spály penicilínem. Treatment of scarlet fever with penicillin CAS. LEK. ČES. 1955, 94/15 (385-394) Tables 10

The experiences gained in the treatment with differential penicillin preparations are a proof that there is no substantial difference in the effects of the preparations. The treatment with crystalline penicillin G given twice a day (interval of 12 hr.) is only moderately effective. The author followed the speed of fall of temperature, of recession of the exanthema, the appearance of complications, the rapidity of the disappearance of β -haemolytic streptococci in the smears and the increase of the titre of the antihæmolyisin O. The results of these schemes of treatment have been followed: (1) Penicillin for injection of whatever origin in a daily dosage of 200-300,000 I.U. (2) Crystalline penicillin G (Czechoslovakia) 100-150,000 I.U. twice a day. (3) Crystalline penicillin G 50-75,000 I.U. 4 times a day. (4) The 1st day 400,000 I.U. of procillin (procaine-penicillin, Czechoslovakia) and then always 300,000 I.U. of a water suspension of penicillin G per day. (5) First dose the same and then 3 times per day a tablet of perocillin (tablets of 200,000 I.U. of penicillin + amidopyrine) per os. (6) Only perocillin 1 tablet 3 times a day. On the 5th day all patients were practically without fever. The infection disappeared after 32-63 hr. Of 720 patients complications were observed in 7.77%. Eight patients had a relapse during 12 weeks after discharge from hospital. The microbiological effect of the treatment was complete in 98-100%. In group II only 93.75% of patients were negative. In convalescent persons of this group a frequent increase of the titre of the antihæmolyisin O was seen. No damage of the white component of the blood by amidopyrine of the perocillin was found. The isolated strains of streptococci of repeated smears were antigenically unchanged. The peroral treatment with penicillin (perocillin) may therefore be considered as valid as the treatment by injection.

Pavlaček - Brno (XX, 7, 6)

VYBORNÁ, M., MUDr.; ZAHRADNICKÝ, J., MUDr.; DVORÁKOVÁ, M., MUDr.;
Laboratorní spolupráce J. Jelínková, R. Bícová

Experience with DBED penicillin in the treatment of scarlet
fever. Česk. epidem. mikrob. imun. 5 no.3:140-146 June
1956.

1. Z oddelení spaly a zaskrtu Thomayerovy nemocnice v Praze-
Krci, ved. lékař MUDr. M. Vyborná, a z Ústavu epidemiologie
a mikrobiologie v Praze, ředitel prof. MUDr. Karel Ráská.
(PENICILLIN, related compounds,

 benzathine penicillin ther. of scarlet fever (Jg))
(SCARLET FEVER, therapy,
 benzathine penicillin (Cg))

ZAHRADNICKY, J.

Czechoslovakia/General Division. Congresses. Sessions. A-4
Conferences

Abs Jour : Ref Zhur-Biologiya, No 3, 1958, 9333
Author : J. Zahradnický
Inst :
Title : Tenth Session of the Czechoslovak Microbiolo-
gists and Epidemiologists
Orig Pub : Seskosl. Epidemiol., imunol, 1956, 5, No 3,
165-166
Abstract : The session was held in Prague 21-23 May 1956
and was devoted to problems of zoonoses. Reports
were heard on listeriosis, toxoplasmosis, bru-
cellosis, ornithosis, leptospirosis, Q-ricket-
tsia and others.

Card 1/1

ZAHRADNICKY, Jiri

Microbiology, epidemiology and clinical aspects of upper
respiratory tract diseases in working youth. Cas. lek. cesk.
95 no.49:1345-1351 7 Dec 56.

1. Ustav Epidemiologie a Mikrobiologie v Praze (red. prof.
Dr. K. Raska).

(RESPIRATORY TRACT, dis.
in working youth (Cz))

(OCCUPATIONAL DISEASES,
resp. tract dis. in working youth (Cz))

KRATKOVA, Edita; ZAHRADNICKY, Jiri

Importance of proper treatment of pharyngitis in prevention of sterile complications. Cas. lek. cesk. 96 no.5:137-140 1 Feb 57.

1. Detske interni oddeleni Thomayerovy nemocnice v Praze-Krci, primar Dr. E. Kratkova Ustav epidemiologie a mikrobiologie v Praze, prednosta prof. Dr. Karel Raska. E. K., Praha-Krc, Budejovicka 800.

(PHARYNGITIS, in inf. & child
streptococcal, prev. of endocarditis, glomerulonephritis & rheum. fever with penicillin (Cs))

(ENDOCARDITIS, in inf. & child
prev. with penicillin ther. of streptococcal pharyngitis (Cs))

(RHEUMATIC FEVER, prevention & control
penicillin ther. of streptococcal pharyngitis (Cs))

(GLOMERULONEPHRITIS, in inf. & child
prev. with penicillin ther. of streptococcal pharyngitis (Cs))

(STREPTOCOCCAL INFECTIONS, in inf. & child
pharyngitis, prev. of endocarditis, glomerulonephritis & rheum. fever with penicillin (Cs))

ZAHRADNICKY, JIRI
ZAHRADNICKY, Jiri, Doc. MUDr.

Present knowledge of streptococcal infections. I. Laboratory and experimental problems. Cas. lek. cesk. 96 no.50:Lek. veda cesk. 96 no.50:213-220 13 Dec 57.

1. Ustav pro mikrobiologii a epidemiologii lekarske fakulty university Karlovy se sidlem v Plzni, predmosta doc. Dr J. Zahradnický. Ustav pro mikrobiologii a epidemiologii lek. fak., Plzen, Marxova 13.

(STREPTOCOCCUS, metabolism,
review (Cz))

ZAHRADNICKY, Jiri, Doc. MUDr.

Present knowledge of streptococcal infections. II. Clinical and epidemiological problems. Cas. lek. cesk. 96 no.50:Lek. veda zahr: 220-229 13 Dec 57.

1. Ustav pro mikrobiologii a epidemiologii lebarske fakulty university Karlovy se sidlem v Plzni, prednosta doc. Dr J. Zahradnický. Ustav pro mikrobiologii a epidemiologii lek. fak. Plzen, Marxova 13.

(STREPTOCOCCAL INFECTIONS,
review (Cz))

ZAHRAVNICKY, J.
ZAHRAVNICKY, Jiri; TUMOVA-PAPIRNIKOVA, Bala

~~Problem of prevention of influenza in groups by vaccination. Cas. lek.
cesk. 97 no.1:10-15 3 Jan 58.~~

1. Ustav epidemiologie a mikrobiologie v Praze, red. prof. Dr K. Haska
J. Z., Plzen, Marxova 13.
(INFLUENZA, prev. & control.
vacc. of groups in Czech. (Cz))

ZAHRADNICKY, Jiri

Problems and prospects of medical microbiology and epidemiology.
Plzen. lek. sborn. 24:127-134 '64

1. Ustav pro mikrobiologii a epidemiologii lekarske fakulty
University Karlovy v Plzni (prednosta: doc. MUDr. J. Zahradnický).

ZAHRADNICKY, J.; VYMOLA F.; HEJZLAR, M.; POTUZNÍK, V.; KUBALA, E.;
HEJNY, J.

Current status of the sensitivity of some pathogenic agents in
Czechoslovakia. Cas. lek. česk. 104 no.23:609-614, 11 Je'65.

1. Ustav pro mikrobiologii a epidemiologii lekarske fakulty
Karlovy University v Plzni; Ustav epidemiologie a mikrobiologie
v Praze; Vojensky ustav hygieny, epidemiologie a mikrobiologie
v Praze; Krajska hygienicko-epidemiologicke stanice v Ceskych
Budejovicich; Lecebna tuberkulozy v Janove u Mirosova; a Lecebna
tuberkulozy ve Vyasných Hagach.

VYMOLA, F.; HEJZLAR, M.; ZAHRAVNICKY, J.; POTUZNÍK, V.

Determination of the sensitivity of microbes to antibiotics
by the disk method. Cesk. epidem. 12 no.5:290-303 3 '63.

1. Ústav epidemiologie a mikrobiologie v Praze - Vojenský
ústav hygieny, epidemiologie a mikrobiologie v Praze - Ústav
mikrobiologie a epidemiologie lékařské fakulty KU v Plzni -
Krajská hygienicko-epidemiologická stanice v C. Budějovicích.
(DRUG RESISTANCE, MICROBIAL) (ANTIBIOTICS)

EXCERPTA MEDICA Sec 7 Vol 10/11 Pediatrics Nov 56

2531. ZÁHRADNICKÝ J. Úst. Epidemiol. a Mikrobiol., Praha. "K léčení spály penicilínem. Treatment of scarlet fever with penicillin CAS. LÉK. ČES. 1955, 94/15 (385-394) Tables 10

The experiences gained in the treatment with different penicillin preparations are a proof that there is no substantial difference in the effects of the preparations. The treatment with crystalline penicillin G given twice a day (interval of 12 hr.) is only moderately effective. The author followed the speed of fall of temperature, of recession of the exanthema, the appearance of complications, the rapidity of the disappearance of β -haemolytic streptococci in the smears and the increase of the titre of the antihæmolysin O. The results of these schemes of treatment have been followed: (1) Penicillin for injection of whatever origin in a daily dosage of 200,000-300,000 I.U. (2) Crystalline penicillin G (Czechoslovakia) 100,000-150,000 I.U. twice a day. (3) Crystalline penicillin G 50,000-75,000 I.U. 4 times a day. (4) The 1st day 400,000 I.U. of perocilin (procaine-penicillin, Czechoslovakia) and then always 300,000 I.U. of a water suspension of penicillin G per day. (5) First dose the same and then 3 times per day a tablet of perocilin (tablets of 200,000 I.U. of penicillin + amidopyrine) per os. (6) Only perocilin 1 tablet 3 times a day. On the 5th day all patients were practically without fever. The infection disappeared after 32-63 hr. Of 720 patients complications were observed in 7.77%. Eight patients had a relapse during 12 weeks after discharge from the hospital. The microbiological effect of the treatment was complete in 98-100%. In group 2 only 93.75% of patients were negative. In convalescent persons of this group a frequent increase of the titre of the antihæmolysin O was seen. No damage of the white component of the blood by amidopyrine of the perocilin was found. The isolated strains of streptococci of repeated smears were antigenically unchanged. The peroral treatment with penicillin (perocilin) may therefore be considered as valid as the treatment by injections.

Pavlaček - Brno (XX, 7, 6)

ZAHRADNICKY J.

CZECHOSLOVAKIA / Virology. Human and Animal Viruses. Influenza E-3
Virus.

Abs Jour : Ref Zhur - Biol., No 18, 1958, No 81253

Authors : Zahradnický, J.; Turnová-Papírníková, B.

Inst : Not given

Title : Influenza Prophylaxis in Collective Farms by Vaccination

Orig Pub : Casop. lékařů českých., 1958, 97, No. 1, 10-15.

Abstract : No abstract.

Card 1/1

KRATKOVA, E.; ZAHRAJNICKY, J.

Antistreptolysin O titer in angina & its relation to the incidence of complications. Cas. lek. cesk. 98 no.12:355-358 20 Mar 59.

1. Datske oddeleni Thomayerovy nemocnice v Praze-Krci, primar MUDr. E. Kratkova, Ustav epidemiologie a mikrobiologie v Praze, reditel prof. MUDr. Karel Baska, Ustav pro mikrobiologii a epidemiologii lekarske fakulty university Karlovy se sidlem v Plzni, prednosta doc. MUDr. Jiri Zahradnický. E. K., Praha-Krc, Budejovicka 800.

(STREPTOCOCCAL INFECTIONS, in inf. & child

antistreptolysin O levels, relation to possible develop. of rheum. fever (Cz))

(RHEUMATIC FEVER

develop. during streptoc. infect., relation to antistreptolysin O levels (Cz))

(ANTISTREPTOLYSIN, in blood

O, in streptoc. infect. in child., relation to develop fever (Cz))

LEJA, Zbigniew; MALLEK, Danuta; ZAHRADNIK, Andrzej

Observations on the behavior of protein fractions in the blood serum during the course of acute infectious diseases. Przegl. epidem. 14 no.4:423-429 '60.

1. Z Oddziału Chorob Zakaźnych Szpitala Miejskiego im. J. Strusia w Poznaniu Ordynator: dr med. A. Zahradnik.
(COMMUNICABLE DISEASES blood) (BLOOD PROTEINS)

CZECHOSLOVAKIA

ZAHRAJNIK, A.

No affiliation given

Bratislava, Farmaceuticky obzor, No 10 [October] 1966, p 476

"PhMr. Ludovit Parkasovsky's Jubilee."

ZAHRADNIK, L.

"Germanium in the products of direct coal combustion and its extractibility of hydrochloric acid."

CHEMICKY PRUMYSL, Praha, Czechoslovakia, Vol. 9, No. 3, March 1959.

Monthly List of East European Accessions (MEAE), LC, Vol. 8, No. 9, September 1959.

Unclassified.

CPA ZAHRADNÍK, F.

Biological Chemistry
Method - 11

A modification of the Kalousch cell for strictly anaerobic conditions. A. Kieřt and F. Zahradník (Charles Univ., Prague, Czech.). *Chem. Listy* 46, 2-17 (1952). -- A new type of the Kalousch cell fitted with ground-glass joints and suitable for universal purposes was designed. M. Hudlík?

ZAHRADNIK, Frantisek; HABERSBERGEROVA, Anna

Device for opening ampuls with gas samples. Chem listy 58
no. 4:468 Ap '64.

1. Institute of Polarography, Czechoslovak Academy of Sciences,
Prague (for Zahradnik). 2. Nuclear Research Institute, Czechoslovak Academy of Sciences, Rez. (for Habersbergerova).

ZAMRADNIK, J.

"Notes on occurrence of certain species of acalyptids of the family
Pseudococcidae in Czechoslovakia."

SEZNAM FAUNISTICKÝCH PRACÍ. ACTA FAUNISTICA ENTOMOLOGICA, Vol. 1, 1956
Praha, Czechoslovakia

Monthly list of EAST EUROPEAN ACCESSION INDEX (EEAI), Library of Congress,
Vol. 3, No. 7, July, 1959

Unclassified

ZAHRADNIK, J.

"Professor Jan Obenberger's sixty-fifth birthday; a biographic sketch. In French."

p. 3 (Sbornik Faunistických Prací. Acta Faunistica Entomologica, No. 2, 1957,
Praha Czechoslovakia.)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No.6 June 1958.

ZAHRAJNÍK, J.

"Three new species of the genus Aleurodidae found in Austria; a contribution to the knowledge of the European Aleurodidae; Homoptera, Aleurodinea. In German."

p. 9 (Sborník Faunistických Prací. Acta Faunistica Entomologica, No. 2, 1957, Praha Czechoslovakia.)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No.6 June 1958.

ZAFRADNIK, J.

"Three new species of white flies (Aleyrodidae) in Czechoslovakia."

SEZNAM FAUNISTICKYCH PRACI. ACTA FAUNISTICA ENTOMOLOGICA, Vol. 1, 1956
Praha, Czechoslovakia

Monthly list of EAST EUROPEAN ACCESSION INDEX (EEAI), Library of Congress,
Vol. 8, No. 7, July, 1959

Unclassified

ZAHRADNIK, J.

Certain species of white flies in Czechoslovakia; first contribution to monography
on white flies in Central Europe. p. 40

Vol. 124, no. 1, 1955
CASOPIS; ODDIL PRIRODEVEDNY
Praha, Czechoslovakia

So: Eastern European Accession Vol. 5, No. 4, 1956

ZAHRADNIK, J.; MOUCHA, J.

Some natural history museums and scientific research institutes in Austria.
p. 90. (CASOPIS; ODDIL PRIRODOVEDNY, Vol. 126, No. 1, 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

ZAHRADNIK, Kvetoslav, inz.

Results of overloading a reinforced concrete crane runway.
Inz stavby 13 no.2:54-55 F '65.

VONDRAKOVA, Zdena, inz.; ZAHRADNIK, Lubomir, dr., inz., laureat statni
ceny; STOVIK, Miroslav, inz., laureat statni ceny

Gallium and its raw materials in Czechoslovakia. Geol-pruzkum
5 no.5:142-143 My '63.

1. Ustav nerostnych surovin, Kutna Hora, pracoviste v Praze.

ZAHRADNIK, L.; STOVIK, M.; TYROLER, J.

Distribution of germanium between the combustion products in a hearth having a traveling grate. p. 62

CHEMICKE PRUMYSI. (Ministerstvo chemického průmyslu) Praha, Czechoslovakia
Vol. 9, No. 2, Jan. 1959
Feb

Monthly List of East European Accessions, (EEAI) LC, Vol. 8, No. 7, July 1959
Uncl.

COUNTRY : CZECHOSLOVAKIA
 CATEGORY : Chemical Technology. Chemical Products and
 Their Uses. Part 2. Ceramics. Glass. Binding *
 ABS. JOUR. : RZKhim., No. 1 1960; No. 1935
 AUTHOR : Voldan, J.; Zahradnik, L.
 INST. : Central Institute of Geology
 TITLE : Use of Differential Thermal Analysis in the
 Study of Crystallization of Fused Melaphyres
 ORIG. PUB. : Sb. Ustredn. ustavu geol. Odd. geol., 1957
 (1958), 24, No 1, 113-128
 ABSTRACT : The process of crystallization of volcanic
 melaphyre glass in Lomnice and Dolni Kalna
 was studied. During heating, magnetite (740-
 780°C), monoclinic pyroxene (805°C) and plagioclase
 (1060°C) crystallize successively. Fusion
 of the separated minerals takes place at a
 temperature > 1110°C. The minerals obtained
 *Materials. Concrete. Glass

CARD:

1/2

H-13

COUNTRY : Czechoslovakia H-22
 CATEGORY :
 ABS. JOUR. : RZKhim., No. 1959, No. 87897
 AUTHOR : Zahradnik, L.; Stovik, M.; Tyroler, J.
 INST. :
 TITLE : Distribution of Germanium in Products of the
 Combustion of Coal in Fire Boxes with Moving
 Grate
 ORIG. PUB. : Chem. prumysl., 1959, 9, No 2, 62-64
 ABSTRACT : The authors have studied the feasibility of
 securing starting raw materials for Ge production, from
 products of direct combustion of coal. A material balance
 is presented for a boiler with conveyer grate, considered
 from the standpoint of Ge-distribution among individual
 products of combustion. More than 70% of Ge originally
 contained in the coal are distributed between volatilized
 ash and furnace cinders. Cinders, because of low Ge-content
 (concentration of about 10-3%) can not be processed. Flying
 ash containing from 0.3 to 0.5% Ge can provide excellent
 raw material for the production of this element.
 Authors' summary.
 CARD:

GRYGAREK, Jiri, inz.; ZAHRADNIK, Ladislav

Results of the measurement and analysis of the ventilation system at the Medlov Mine in the Jeseniky Ore Mines. Sbor VSB Ostrava 9 no.4:507-529 '63.

Measurement and evaluation of mining on the surface conditions at the Medlov mine in the Jeseniky Ore Mines. Ibid. 581-603

1. Vysoka skola banska, Ostrava (for Grygarek). 2. Rudne doly Jesenik, zavod Medlov (for Zahradnik).

ZAHRADNIK, L.: VOLDAN, J.

"Use of differential thermal analysis in the investigation of the crystallization of melted melaphyre"

Sbornik. Oddil geologicky. Praha, Czechoslovakia. Vol. 24, no. 1, 1957 (published 1958)

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

ZAHRADNIK, L.

CZECHOSLOVAKIA/Cosmochemistry - Geochemistry -
Hydrochemistry.

D.

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 24605

Author : Svasta, J., Zahradnik, L., Sulcek, Z., Stovik. M.,
Bouberle, M., Rotter, R.

Inst : -

Title : Content of Germanium in Czechoslovak Coal and Its Products

Orig Pub : Geotechnica, 1955, No 20, 142 s., 11.

Abstract : Presentation of the results of oxidimetric, potentiometric, phenylfluoronic, spectral and also the polarographic and roentgeno- spectral (with the use of Ge K line) analyses, developed by the authors, of samples collected from all the coal fields and of ash from gas plants. The last mentioned method is considered best, yielding qualitative and quantitative results with an accuracy of 3 . . 10⁻³% with coal and of 0.05% with fly ash. Highest concentration of Ge was found in coal of western Bohemia in

Card 1/2

ZAHRADNIK, Lubomir; TYROLER, Jiri; VONDRAKVA, Zdenka

Germanium content in the seam zones of the Pilsen coal basin. Sbor
chem tech 4 no.2:267-276 '60. (EEAI 10:9/10)

1. Ustav herostnych surovin, Praha a katedra mineralogie, Vysoka
skola chemicko-technologicka, Praha.

(Germanium) (Coal)

Z/009/61/000/012/001/005
E112/E953

AUTHORS: Zahradník, Lubomír, Formánek Zdeněk, Šťovík
Miroslav, Tyroler Jiří and Vondráková Zdena

TITLE: Recovery of germanium dioxide from flue dusts

PERIODICAL: Chemický průmysl, no.12, 1961, 625-629

TEXT: The only domestic sources of germanium in Czechoslovakia are the flue dusts from certain coals (germanium contents range from 0.2 to 0.8%) and the present paper discusses three possible methods of recovery via germanium dioxide: 1) Extraction with water or inorganic solvents, such as H_2SO_4 , HCl , HNO_3 , $NaOH$ and $(NH_4)_2S_x$. Best results are achieved with 0.05 N- H_2SO_4 , yielding up to 97% of the available germanium. Extraction efficiency is closely connected with the physical characteristics of the flue dusts, good recoveries being obtainable only with flue dusts of very fine particle size. Furthermore, only germanium available in soluble form will respond to the method. 2) Chlorination of flue dusts. This process can be operated either at lower temperatures, in presence of steam, or at high temperatures, in presence of air. Compared to the distillation method with HCl ,
Card 1/54 ✓

Recovery of germanium ...

Z/009/61/000/012/001/005
E112/E953

✓
yields of germanium are inferior and the recovered products less pure. A further rectification is therefore necessary. The chlorination method, on the other hand, offers the advantage that even very low-content flue dusts can be processed. 3) Direct distillation with HCl. This method is considered the simplest from the technological point of view. It is only suitable for raw materials, containing germanium in a volatilisable form and is not economical for flue-dusts with low germanium content. The method consists of treating the flue dust with HCl, and procedures for the separation of the formed GeCl_4 are described in detail. So far, this has been effected in two ways: a) Absorption of the gaseous mixture in water, containing 20% HCl. A recovery of 2-13 g germanium per 1 litre is feasible but this is considered unsatisfactory. b) Separation of germanium tetrachloride by condensation. However, considerable amounts of GeCl_4 are entrained by HCl, and the method is, therefore, rejected as uneconomical. The authors now offer a new procedure for GeCl_4 absorption, based on the use of non-polar solvents, of which carbon tetrachloride has proved the most suitable. The efficiency of a 0.2% GeCl_4 solution in CCl_4

Card 2/54

Recovery of germanium ...

Z/009/61/000/012/001/005
E112/E953

is given as 97-99.5% at 20°C. As practical processing would require large volumes of CCl_4 (1500 kg/kg Ge) a two-step absorption process is suggested. A diagram of a laboratory arrangement for the continuous recovery of germanium tetrachloride by the carbon tetrachloride method is shown (Fig.6). The apparatus operates under slight vacuum and has a capacity of 30 kg flue dust per day. The solution of GeCl_4 in CCl_4 is preliminarily refined by extraction with concentrated hydrochloric acid, containing 10% nitric acid. Hydrolysis of GeCl_4 is carried out in the usual way. The experience gained in laboratory trials led to the construction of a semi-technical batch-wise unit, which in two months produced 10 kg germanium dioxide from 1000 kg flue dust. There are 5 tables, 5 figures and 5 references: 2 Soviet-bloc and 3 non-Soviet bloc. The English-language references read as follows: Ref.1: Journal of Metals, 979(1953); Ref.2: Johnson O.H., Chemical Reviews, vol.51, 432 (1952); Ref.5: Aubrey K.V., Nature, vol.176, 2 (1955). ✓

ASSOCIATION: Ústav nerostných surovin, Praha
(Institute for Mineral Raw Materials, Prague)

Card 3/54

Recovery of germanium ...

Z/009/61/000/012/001/005
E112/E953

SUBMITTED: January 16, 1961

Fig.6. Legend.

- 1 - mixing vessel, with stirrer, for absorption of flue dust in hydrochloric acid,
- 3,4 - steam-heated boiling tubes,
- 5 - separator,
- 6 - condenser,
- 7 - absorption vessel,
- 8 - absorption column with Raschig rings,
- 10 - separating funnel with CCl_4 ,
- 9 - condenser, cooled to 0°C ,
- 11 - reservoir, to which a slight vacuum is applied.

Card 4/54

S/081/63/000/001/048/061
B144/B186

AUTHORS: Tyroler, Jiří, Formánek, Zdeněk, Vondráková, Zdena,
Zahradník, Lubomír, Štovík, Miroslav

TITLE: Production of pure germanium dioxide from germanium
concentrates

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1963, 347, abstract
1L38 (Czechosl. patent 101148, October 15, 1961)

TEXT: Ge concentrates are distilled continuously with concentrated HCl
(ratio 1 : 1 - 2) with simultaneous bubbling of Cl_2 (gas) through the
solution or addition of oxidants ($\text{K}_2\text{Cr}_2\text{O}_7 + \text{H}_2\text{SO}_4$). The GeCl_4 vapors
together with HCl, vapors Cl_2 and impurities are washed out of the gas
mixture by organic solvents (CCl_4); then, the GeCl_4 dissolved in the
organic solvent is washed with HCl (acid) and hydrolyzed. Example. The
apparatus comprises 2 containers with agitators of 70 l capacity (the
mixture is tapped from one container, while at the same time the other
Card 1/2

Production of pure germanium ...

S/081/63/000/001/048/061 -
B144/B186

tank is filled), a metering pump, a cooking boiler, a foam separator and an absorber. In the containers, the mixture of 25-30 kg concentrate and 50 kg HCl (acid) is prepared. The absorber is filled with CCl_4 . The operation of the metering pump and the heating of the boiler is controlled in such a way that the foam entering the separator has a temperature of 100°C . From the separator the suspension is drained-off to waste, but the vapors are led into the absorber, from which GeCl_4 dissolved in CCl_4 is drawn off intermittently or continuously and hydrolized thrice with distilled water. The product contains 0.005 - 2% As and is a suitable raw material for semiconductors. [Abstracter's note: Complete translation.]

Card 2/2

23568

18.3100

only 1087

Z/009/61/000/007/001/004
E112/E135

AUTHORS: Zahradník, Lubomír, Formánek, Zdeněk, Šťovík, Miroslav,
Tyroler, Jiří, and Vondráková, Zdena

TITLE: Properties of furnace flue dusts and their use for the
recovery of germanium

PERIODICAL: Chemický průmysl, 1961, No.7, pp. 337-341

TEXT: Coal which is rich in germanium was ashed in a reducing
atmosphere and coarser fractions were separated by means of
cyclones. Flue dust of finer particle size was recovered by
electrostatic separation and this contained up to 1% germanium.
Industrial recovery of germanium was considered feasible and
therefore laboratory methods for its extraction and the nature of
the bond between germanium and the flue dust particles were studied.
The flue dust was separated into different fractions according to
particle size and the relationship between germanium concentration
and particle size was investigated. Germanium contents decreased
as the particle size increased and, consequently, main attention
was paid to flue dust smaller than 60 μ (0.12% Ge). During the
ashing of coal a number of elements are volatilized and absorbed
Card 1/4

X

23568

Z/009/61/000/007/001/G04
E112/E135

Properties of furnace flue dusts and their use for the recovery of germanium

from the gaseous phase by the flue dust particles. The sorption process was studied by determining the concentrations of the various elements in the original coal and the flue dust. Spectroscopic methods of analysis were used and results are tabulated. On the average, the flue dusts contained between 27 and 33% combustible materials. Their concentration decreased on extraction with 0,2 N-H₂SO₄, indicating that they did not consist entirely of carbon. Results for three types of flue dust are tabulated, showing the following: 1) loss of weight of flue dust on calcination; 2) loss of weight of flue dust on calcination, after extraction with H₂SO₄; and 3) loss of weight of flue dust on extraction with H₂SO₄. Results of spectrographic analyses of flue dusts, H₂SO₄-extracts and extraction residues are submitted, listing all elements occurring in the three different fractions in the following concentrations: 1) higher than 1%; 2) 1.0-0.1%; 3) 0.1-0.01%; and 4) lower than 0.01%. The following values are tabulated for germanium: original sample of flue dust, 1 - 0.1%; Card 2/ 4

23568

Z/009/61/000/007/001/004
E112/E135

Properties of furnace flue dusts and their use for the recovery of germanium

H₂SO₄-extract, 1 - 0.1%; ashing residue of H₂SO₄-extract, 0.1 - 0.01%. Extraction methods for germanium from flue dusts, using water, acids, and alkalis, are described. Water extraction recovered about 50% of the available germanium. Extractability with H₂SO₄ was inversely proportional to the concentration of the latter, (20 N-H₂SO₄ extracted 64.5% Ge, while 0.05 N-H₂SO₄ gave 96.7% recovery). On the other hand, extractability with HCl increases with increased concentration. Recovery of Ge by means of HNO₃ was not feasible. The separation of Ge by means of HCl (in the form of CaF₂) is recommended to convert the SiO₂ to SiF₄, which is driven off by heating. Extraction with weakly alkaline solutions was somewhat inferior to processing with dilute acids. In order to obtain additional information about the isolation of germanium from flue dusts, the volatility of germanium dioxide at different temperatures was studied and results are tabulated. It was found that up to 400 °C germanium was not volatile and was

Card 3/4

23568

Properties of furnace flue dusts

Z/009/61/000/007/001/004
E112/E135

assumed to be present as GeO_2 , easily soluble in alkalies. On the other hand, samples of flue dust, heated under identical conditions, showed poor extractability of Ge by means of dilute sulfuric acid. This is explained by the poor solubility of GeO_2 in H_2SO_4 . It is concluded from laboratory experiments that flue dusts containing 0.3-1.0% Ge present a suitable raw-material for a Czechoslovak germanium recovery industry. Extraction with dilute sulfuric acid or treatment with HCl and distillation as GeCl_4 , optionally in a stream of HCl, are suggested. The described laboratory methods were utilized for industrial scale production, details of which are to be published later.

There are 7 figures, 12 tables and 12 references: 3 Czech, 7 English and 2 German.

ASSOCIATION: Ústav nerostných surovin, Praha
(Institute for Mineral Raw-Materials, Prague)

SUBMITTED: January 16, 1961

Card 4/4

S/001/62/000/019/019/053
B144/B180

AUTHORS:

Štovík, Miroslav, Zahradník, Lubomír, Tyroler, Jiří, Vondrá-
kovi, Zdena, Formanek, Zdenek

TITLE:

Production of concentrates of germanium and other trace ele-
ments by burning coal in furnace grates

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 19, 1962, 340, Abstract
19K82 (Czechoslovakian patent 99414, April 15, 1961)

TEXT: When coal is burned in furnaces, almost all the Ge is carried away
with the finer fractions in the form of volatile compounds. For more com-
plete removal it is suggested that the coal should be burnt in a reducing
atmosphere. To this end the entry of primary air from below is restricted to
a minimum and that of secondary air above the grate is increased. The amount
of Ge compounds adsorbed in the thin fractions then rises to 80% the Ge con-
tent of the coal. The combustion gases are led through a cyclone, where
the largest particles are separated, and then through an electrostatic fil-
ter and a second cyclone. Alternatively, after separating the large par-
ticles, the gas is passed through a scrubber, (with either mineral or sili-
Card 1/2